

In the Claims:

Please replace Claims 1, 17, 20, 21, 48, 50, 51, 53, 61, 63, 67-70, 75, 77, 79 and 84, cancel Claims 5, 6, 10-16, 25, 26, 28-47, 49, 52, 54, 59, 60, 62, 64, 66, 71-74, 78 and 86-112, and add Claims 113-128, all as shown below. All pending claims are reproduced below, including those that remain unchanged.

1. (Currently Amended) An ion generator comprising:  
a first electrode having a centerline;  
a pair of second ~~electrode~~ electrodes arranged off-center relative to the centerline;  
a voltage generator electrically coupled to the first electrode and the pair of second ~~electrode~~ electrodes in order, when energized, to create a flow of air in a downstream direction from the first electrode to the pair of second ~~electrode~~ electrodes;  
wherein the centerline is substantially parallel to the flow of air;  
a focus electrode located upstream of the first electrode in order to ~~focus~~ urge the flow of air toward a corresponding second electrode from the pair of second ~~electrode~~ electrodes, the focus electrode being arranged off-center relative to the centerline;  
wherein the focus electrode, the first electrode, and the corresponding second electrode are aligned.
2. (Original) The generator of claim 1 wherein said focus electrode substantially less emissive of ions than the first electrode.
3. (Original) The generator of claim 1 wherein said focus electrode includes a shape selected form one of a group consisting of rod shaped, wire shaped, planar shaped, concave shaped, and convex shaped.
4. (Original) The generator of claim 1 wherein said focus electrode is electrically connected to the first electrode.
5. (Cancelled)

6. (Cancelled)

7. (Original) The generator of claim 1 wherein the first electrode has a first diameter and the focus electrode has a second diameter and wherein said second diameter of the focus electrode is at least fifteen times larger than the first diameter of the first electrode.

8. (Original) The generator of claim 1 wherein said focus electrode is a curved surface.

9. (Original) The generator of claim 1 wherein said focus electrode is a curved surface having a plurality of perforations.

Claims 10-16 (Canceled)

17. (Currently Amended) The generator of claim 1 wherein said focus electrode has a diameter and is upstream from the first electrode a distance of about four ~~or five~~ diameters of the focus electrode.

18. (Original) The generator of claim 1 wherein said focus electrode is concave in a direction facing the first electrode.

19. (Original) The generator of claim 1 wherein said focus electrode is convex in a direction facing the first electrode.

20. (Currently Amended) The generator of claim 1 wherein said focus electrode is an ion emitter and the pair of second ~~electrode is a collector of~~ electrodes collect particulate matter.

21. (Currently Amended) The generator of claim 1 wherein said focus electrode is positively charged and the pair of second ~~electrode is~~ electrodes are negatively charged.

22. (Original) The generator of claim 1 wherein said focus electrode is a concave disk facing in the direction of the first electrode.

23. (Original) The generator of claim 1 wherein said focus electrode is a perforated concave disk facing in the direction of the first electrode.

24. (Original) The generator of claim 22 wherein said first electrode is pin-shaped.

25. (Cancelled)

26. (Cancelled)

27. (Original) The generator of claim 1 wherein said first electrode has a substantially smaller diameter than a diameter of said focus electrode so that said first electrode is substantially more emissive of ions than said focus electrode.

Claims 28-47. (Cancelled)

48. (Currently Amended) A device that transports and conditions air including  
a housing with an air inlet and an air outlet  
a first electrode having a centerline;  
a pair of second ~~electrode~~ electrodes positioned off-center relative to the centerline;  
said first electrode located closer to said air inlet than said pair of second ~~electrode~~ electrodes;  
said pair of second ~~electrode~~ electrodes located closer to said air outlet than said first electrode;  
a potential generator electrically coupled to the first electrode and the pair of second ~~electrode~~ electrodes in order, when energized, to create a flow of air in a downstream direction from the first electrode to the pair of second ~~electrode~~ electrodes;  
wherein the centerline is substantially parallel to the flow of air; and  
a pair of a focus ~~electrode~~ electrodes located upstream of the first electrode in order to focus ~~urge~~  
the flow of air toward the pair of second ~~electrode~~ electrodes;  
wherein each of the focus electrodes is arranged so that the focus electrode, the first electrode,  
and a corresponding second electrode are aligned.

49. (Cancelled)

50. (Currently Amended) A method for transporting and conditioning air comprising the steps of:  
generating an electrical potential between a first electrode and a second electrode in order to  
create a flow of air in a downstream direction from the first electrode to the second electrode and to ionize  
particulate matter in the air flow; and  
focusing particulate matter within the flow of air toward said second electrode from a position  
upstream of said first electrode.

51. (Currently Amended) The generator of claim 1 wherein when said voltage generator is  
energized, ions are generated at said first electrode and directed toward said pair of second ~~electrode~~  
electrodes.

52. (Cancelled)

53. (Currently Amended) The device of claim 48 wherein when said potential generator is  
energized, ions are generated at said first electrode and directed toward said pair of second ~~electrode~~  
electrodes.

54. (Cancelled)

55. (Original) The method of claim 50 including generating ions with the generation of the  
electrical potential.

56. (Original) The method of claim 50 including generating ozone with the generation of the  
electrical potential.

57. (Original) The generator of claim 1 wherein said focus electrode and said first electrode  
operate at about the same potentials.

58. (Original) The generator of claim 1 wherein said focus electrode and said first electrode  
operate at positive potentials.

59. (Cancelled)

60. (Cancelled)

61. (Currently Amended) The ion generator of claim 1 wherein said pair of second ~~electrode~~ electrodes is removable by a user for cleaning.

62. (Cancelled)

63. (Currently Amended) The device of claim 48 wherein said pair of second ~~electrode~~ electrodes is removable by a user for cleaning.

64. (Cancelled)

65. (Original) The generator of claim 1 wherein said generator is incorporated in a housing and with said housing comprises an electro-kinetic air transporter-conditioner.

66. (Cancelled)

67. (Currently Amended) The generator of claim 1 wherein said generator is incorporated in a housing and with said housing comprises an electro-kinetic air transporter-conditioner and said housing has a top and said pair of second ~~electrode~~ electrodes is removable from said top for cleaning.

68. (Currently Amended) The generator of claim 1 wherein:  
said generator is incorporated in an elongated freestanding housing with a top and with said housing comprises an electro-kinetic air transporter-conditioner; and  
wherein said pair of second ~~electrode~~ electrodes is elongated and is removable from said top of said housing.

69. (Currently Amended) The generator of claim 1 wherein:

said generator is incorporated in an elongated freestanding housing with a top and with said housing comprises an electro-kinetic air transporter-conditioner; and

wherein said pair of second ~~electrode~~ electrodes is elongated and is at least partially removable from said top of said housing.

70. (Currently Amended) The generator of claim 1 wherein:

said generator is incorporated in an elongated freestanding housing with a top and with said housing comprises an electro-kinetic air transporter-conditioner; and

wherein said pair of second ~~electrode~~ electrodes is elongated and is telescopingly removable through said top of said housing.

Claims 71-74. (Cancelled)

75. (Currently Amended) An electro-kinetic air transporter-conditioner having an ion generator, the ion generator comprising:

a first electrode having a centerline;

a pair of second ~~electrode~~ electrodes downstream of the first electrode and positioned off-center relative to the centerline;

a focus electrode upstream of the first electrode; and

a voltage generator electrically coupled with the first ~~and second~~ electrode and the pair of second electrodes;

wherein the focus electrode is arranged so that the focus electrode, the first electrode, and a corresponding second electrode are aligned.

76. (Original) The generator as recited in claim 75, wherein the first electrode has at least one electrode that has at least one characteristic from a group consisting of (i) a rod-shaped wire, (ii) a spiral coil wire, (iii) a curved wire, (iv) a flat spiral wire, (v) slack wire and (vi) a tapered pin-shaped electrode.

77. (Currently Amended) The generator as recited in claim 75, wherein the pair of second ~~electrode~~ electrodes has ~~at least two electrodes having~~ at least one characteristic from a group consisting of (i) a U-shaped cross-section, (ii) an L-shaped cross-section, and (iii) a ring-shaped.

78. (Cancelled)

79. (Currently Amended) The generator as recited in claim 77, wherein each of the pair of second electrode electrodes has a U-shaped cross-section and a protective end formed with said second electrode.

80. (Original) The generator as recited in claim 75, wherein the focus electrode has at least one characteristic from a group consisting of (i) a rod-shaped wire, (ii) a convex surface, and a (iii) concave surface.

81. (Original) The generator as recited in claim 75, wherein the focus electrode is substantially non-emissive in comparison to the first electrode.

82. (Original) The generator as recited in claim 75, wherein the diameter of the focus electrode is fifteen times greater than the diameter of the first electrode.

83. (Original) The generator as recited in claim 75, wherein the focus electrode and the first electrode are electrically connected.

84. (Currently Amended) The generator as recited in claim 75, wherein the ion generator further has a trailing electrode located downstream of the pair of second electrode electrodes.

85. (Original) The ion generator as recited in claim 84, wherein the voltage generator is further electrically connected to the trailing electrode.

Claims 86-112. (Cancelled)

113. (New) An ion generator comprising:

a first electrode;

a pair of second electrodes;

a voltage generator electrically coupled to the first electrode and the pair of second electrodes in order, when energized, to create a flow of air in a downstream direction from the first electrode to the pair of second electrodes; and

a focus electrode located upstream of the first electrode, the focus electrode having one of a concave and a convex surface relative to the first electrode;

wherein the focus electrode urges the flow of air toward a corresponding second electrode from the pair of second electrodes.

114. (New) The ion generator of claim 113, wherein the concave surface is perforated.

115. (New) The ion generator of claim 113, wherein the focus electrodes is arranged so that the focus electrode, the first electrode, and the corresponding second electrode are substantially aligned.

116. (New) The ion generator of claim 115, wherein the corresponding second electrode includes a nose and a trailing edge; and

wherein the focus electrode is aligned with the first electrode and the nose of the corresponding second electrode.

117. (New) The ion generator of claim 113, wherein said focus electrode is substantially less emissive of ions than the first electrode.

118. (New) The ion generator of claim 113, wherein the focus electrode is electrically connected with the first electrode.

119. (New) The system of claim 49, wherein said pair of focus electrodes are concave in a direction facing the emitter electrode.

120. (New) The system of claim 49, wherein said pair of focus electrodes are convex in a direction facing the emitter electrode.

121. (New) The system of claim 49, wherein said pair of focus electrodes are each a concave disk



facing in a direction of the emitter electrode.

122. (New) The system of claim 121, wherein concave disk is perforated.

123. (New) An air transporter-conditioner system having an emitter electrode, two collector electrodes positioned downstream from the emitter electrode and off-center relative to a centerline through the emitter electrode, and at least one focus electrode associated with the emitter electrode and positioned upstream of the emitter electrode, the air transporter-conditioner system also having a voltage generator electrically coupled to the emitter electrode and the two collector electrodes in order, when energized, to create a flow of air in a downstream direction from the emitter electrode to the two collector electrodes, the improvement comprising:

the at least one focus electrode being arranged off-center relative to a centerline through the emitter electrode such that the at least one focus electrode, the emitter electrode, and at least one of the collector electrodes are aligned.

124. (New) The system of claim 123, wherein the two collector electrodes include a nose and a trailing edge; and

wherein the improvement further comprises:

the at least one focus electrode is aligned with the associated emitter electrode and the nose of at least one of the collector electrodes.

125. (New) An air transporter-conditioner system having at least one emitter electrode, at least two collector electrodes positioned downstream from the at least one emitter electrode and off-center relative to a centerline through the at least one emitter electrode, and at least one focus electrode associated with one of the at least one emitter electrodes and positioned upstream of the associated emitter electrode, the air transporter-conditioner system also having a voltage generator electrically coupled to the at least one emitter electrode and the at least two collector electrodes in order, when energized, to create a flow of air in a downstream direction from the at least one emitter electrode to the at least two collector electrodes, the improvement comprising:

the at least one focus electrode includes a curved surface so that the curved is concave relative to a respective emitter electrode.

126. (New) An ion generator comprising:

a pair of first emitter electrodes;

a second emitter electrode arranged between the first emitter electrodes and having a centerline;

a pair of collector electrodes downstream from said first and second emitter electrodes, each of the collector electrodes being arranged substantially equidistant from the second emitter electrode and a corresponding first emitter electrode form the pair of first emitter electrodes;

a voltage generator electrically coupled to the first and second emitter electrodes and the pair of collector electrodes in order, when energized, to create a flow of air in a downstream direction from the first and second emitter electrodes to the pair of collector electrodes;

a pair of first focus electrodes located upstream of the pair of first emitter electrodes, each of the first focus electrodes being aligned with one of the first emitter electrodes and the corresponding collector electrode; and

a second focus electrode located upstream of the second emitter electrode such that the second focus electrode and the second emitter electrode are aligned substantially along the centerline of the second emitter electrode.

127. (New) An ion generator comprising:

an emitter electrode;

a pair of collector electrodes located downstream from the emitter electrode;

a pair of trailing electrodes arranged downstream of the pair of collector electrodes;

a voltage generator electrically coupled to the emitter electrode and the pair of collector electrodes in order, when energized, to create a flow of air in a downstream direction from the emitter electrode to the pair of collector electrodes;

a first pair of focus electrodes located upstream of the emitter electrode;

a second pair of focus electrodes located upstream of the first pair of focus electrodes;

wherein one of the first pair of focus electrodes, one of the second pair of focus electrodes, the emitter electrode and one of the pair of collector electrodes are aligned; and

wherein the other of the first focus electrodes, the other of the second pair of focus electrodes, the emitter electrode and the other of the pair of collector electrodes are aligned.

128. (New) An ion generator comprising:

a pair of emitter electrodes;

a collector electrode arranged downstream from the emitter electrode, the collector electrode further being arranged substantially equidistant from each of the pair of emitter electrodes;

a pair of focus electrodes arranged upstream from the pair of emitter electrodes;

a pair of trailing electrodes arranged downstream of the pair of collector electrodes;

a voltage generator electrically coupled to the pair of emitter electrodes and the collector electrode in order, when energized, to create a flow of air in a downstream direction from the pair of emitter electrodes to the collector electrode;

wherein one of the pair of emitter electrodes, one of the pair of focus electrodes and the collector electrode are aligned; and

wherein the other of the pair of emitter electrodes, the other of the pair of focus electrodes and the collector electrode are aligned.